NOTES: UNLESS OTHERWISE SPECIFIED

01. EXTERNAL TOOLING HOLE DIMENSIONS.

02. MINIMUM ANNULAR RING .001 EXCEPT BREAK OUT PERMITTED ON TRIMMED PADS.

03. MAX. INTERNAL RADII- .062 MAX. EXTERNAL RADIUS .063.

04. NO DEBURR REQUIRED.

05. CRAZING AND DELAMINATION WITHIN A MAX. OF .030 BOARD PERIMETER SHALL BE ACCEPTABLE.

~~06. HOLE LOCATION ⊕ A B .014 Ⓢ (RFS) OR ⊕ A B .010 Ⓜ (MMC).~~

07. ALL HOLES NOT DIMENSIONED ARE ON .025 INCH GRID INCREMENTS IN RELATION TO DATUM 0.

08. DECIMAL HOLE DIAMETERS AND HOLE TOLERANCES GOVERN HOLE SIZE. ~~NUMBERS IN PARENTHESIS ARE FOR REFERENCE ONLY.~~

09. FINISHED ARTWORK CONDUCTOR WIDTH AND SPACING TO BE AS SHOWN ON MASTER PATTERN ± .004.

10. BOARD WARP OR TWIST SHALL NOT EXCEED .020 INCH PER INCH LENGTHWISE AND SHALL NOT EXCEED .018 INCH PER INCH CROSSWISE.

11. NO CLEARANCE REQUIRED FROM CONDUCTOR TO EDGE OF BOARD AND SLOTS.

12. MATERIAL SHALL BE .062 THK NEMA GRADE FR-4 OR G-10 WITH ONE OZ. COPPER BOTH SIDES.

13. PROCESSES: TIN LEAD 60/40 PLATE, .0003 THK MIN, PER QQ-S-571 "REFLOWED" BEFORE SOLDER MASK IS APPLIED.

14. SOLDER MASK SHALL BE SCREENED ON BOTH SIDES USING PC 401 OR APPROVED EQUIVALENT. COLOR TO BE GREEN.

15. SOLDER MASK IS PERMITTED TO BLEED ON PADS OF CONDUCTOR SIDE WHERE PADS ARE TRIMMED AND ON COMPONENT SIDE OF BOARD.

16. MARK PER ANSI Y32. 16-1968, METHOD SILK SCREEN, HEIGHT PER ARTWORK PROVIDED, COLOR CONTRASTING (F100, METHOD 1, CLASS 1).

17. REGISTRATION MARKS TO BE USED FOR POSITIONING MARKING AT HOLES SHOWN.

~~18. THIS PWB IS AN UL RECOGNIZED COMPONENT AND, SUCH AS, MUST DISPLAY THE VENDORS MARK RECOGNIZED BY UL IN THE AREA OF THE PWB INDICATED.~~

19. SOLDER MASK ALLOWED TO BLEED A MAX. OF .005 ONTO THE PAD.

~~20. NO ANNULAR RING REQUIREMENTS ON OVAL PADS.~~

21. SOLDER MASK PERMITTED TO COVER TIN-LEAD-PLATED COPPER AREAS GREATER THAN .250 INCH.

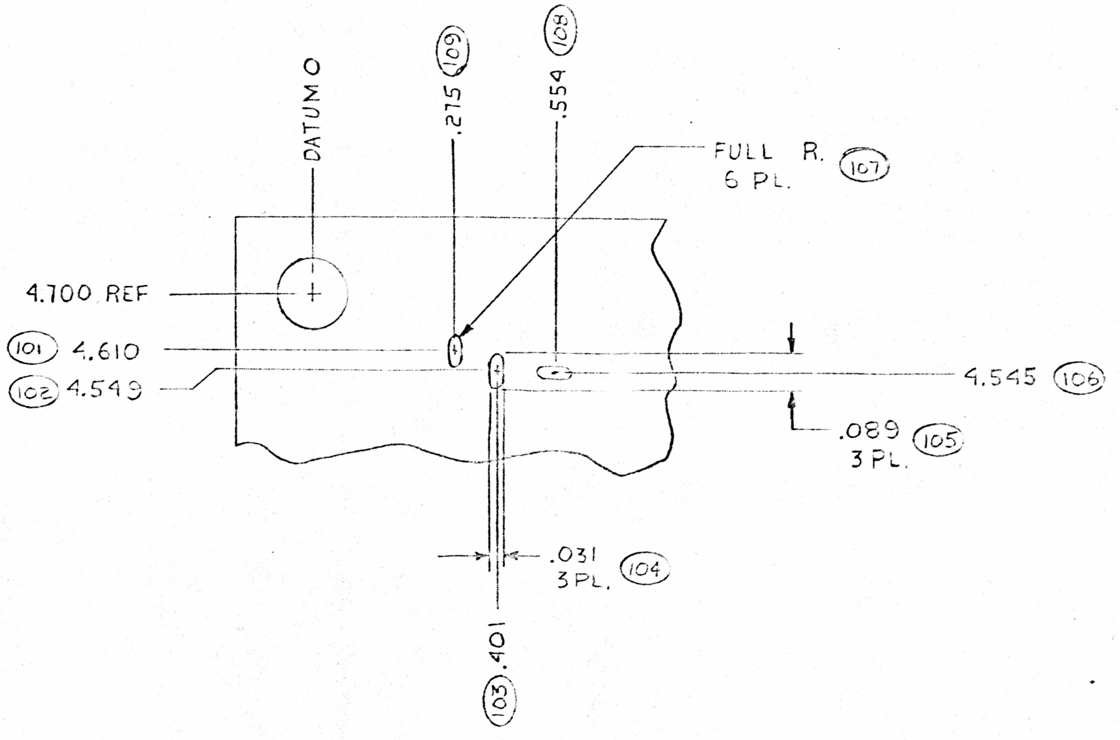
22. NOT REQUIRED ASSY NO AND BOARD REF. DESIG.

23. SOLDER MASK ALLOWED TO COVER FEED-THRUS.

24. ALL HOLES TO BE WITHIN 0.014-INCH TRUE POSITION OF DATUM O WHEN TO PLANE A AND PLANE B.

25. LINE WIDTH FOR SILKSCREEN ALLOWED TO BE .010.

26. SLOTS ARE PLATED THRU.



VIEW A
SCALE: NONE

LTR	FINISHED HOLE DIA UNSUPPORTED +.004 −.001	FINISHED HOLE DIA PLATED THRU +.007 −.003	REMARKS
J	.115 ±.003		
H		.170 +.006 −.002	
G		.060 +.006 −.002	
F		.094 +.006 −.002	
E		.046 +.006 −.002	
D		.039 +.006 −.002	
C		.031	UNLETTERED
B		.125 +.006 −.002	INTL TOOLING
A	SHOP OPTION	SHOP OPTION	EXTL TOOLING

HOLE SCHEDULE

REVISION LEVEL CONTROL
INVENTORY CONTROL NUMBER
THIS DRAWING
HOLE CONFIGURATION
DRILL DECK
LAYER 1 (COMP. SIDE)
LAYER 2 (COND. SIDE)
MARKING
CONDUCTOR SIDE SOLDER MASK
COMPONENT SIDE SOLDER MASK

DIMENSION IDENTIFIERS	
LAST USED	NOT USED
223	110-200

NEXT ASSY	PRODUCT
	477
APPLICATION	

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES
  ANGLES ±
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02
- DIMENSIONING IN ACCORDANCE WITH ANSI Y14.5

MATERIAL: 12

DWN 1-31-83
CHK 2/ /83
ELECT ENG 2/2 /83
TOOLING ENG
MFG ENG
PRODUCT ENG
DESIGN ACTIVITY RELEASE

TYPE II

TEXAS INSTRUMENTS INCORPORATED
CALCULATOR PRODUCTS DIVISION

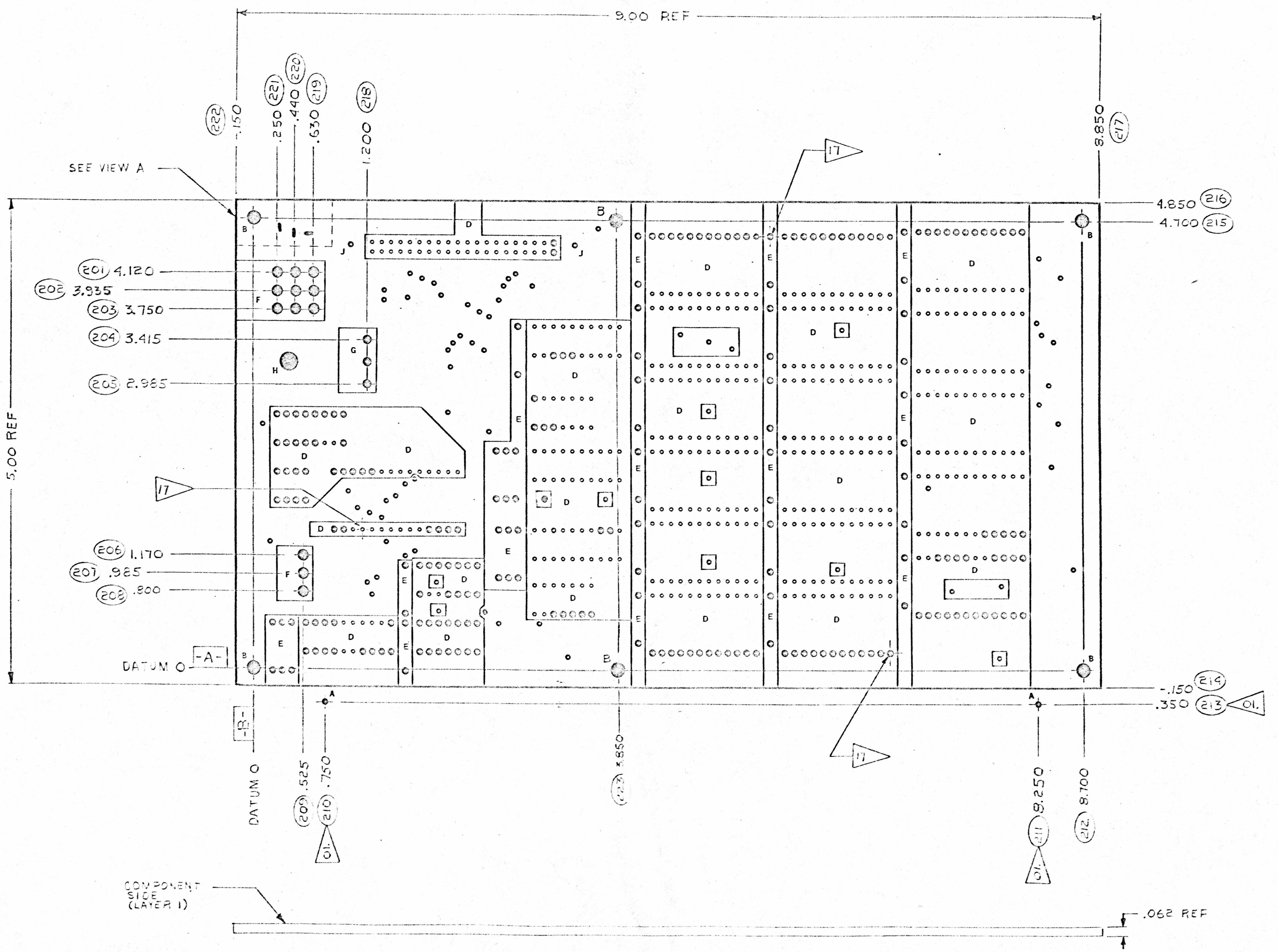
PRINTED WIRING BOARD, PRODUCT 477

SUP DWG: MP | SIZE: D | DRAWING NO: 1055801

SCALE NONE | REV LTR | SHEET 1 OF 2

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED

1055801 D



DIMENSION IDENT. NUMBER	
USED	NOT USED
201-223	

TEXAS INSTRUMENTS

DATE 1-31-83 | SIZE D | DRAWING NO. 1055801 | REV – | SCALE NONE | SHEET 2 OF 2